

03/036 MFE

What is claimed is:

1. A coextruded, transparent, biaxially oriented polyester film comprising a base layer (B) and a heatsealable top layer (A) which is peelable from APET, the heatsealable and peelable top layer (A) consisting of
  - a) 80-98 % by weight of polyester and
  - b) 2-10 % by weight of inorganic and/or organic particles having an average diameter  $d_{50}$  of from 2.5 to 12.0  $\mu\text{m}$   
(based on the mass of the top layer (A)),  
the polyester being composed of
    - c) 12-89 mol % of units which derive from at least one aromatic dicarboxylic acid and,
    - d) 11-88 mol% of units which derive from at least one aliphatic dicarboxylic acid,  
the sum of the dicarboxylic acid-derived molar percentages being 100  
and
    - e) the ratio of particle size  $d_{50}$  and layer thickness  $d_A$  of the top layer (A) being greater than 1.0  
and
    - f) the layer thickness of the top layer (A)  $d_A$  being from 2.3 to 10.0  $\mu\text{m}$ .
2. The sealable and peelable polyester film as claimed in claim 1, wherein the aliphatic dicarboxylic acids are selected from one or more of the following substances: pimelic acid, suberic acid, azelaic acid, sebacic acid, glutaric acid and adipic acid.

03/036 MFE

3. The sealable and peelable polyester film as claimed in claim 1 or 2, wherein the aromatic dicarboxylic acids are selected from one or more of the following substances: terephthalic acid, isophthalic acid and 2,6-naphthalenedicarboxylic acid.
4. The sealable and peelable polyester film as claimed in one of claims 1 to 3, wherein the polyester of the top layer (A) comprises:  
from 12 to 89 mol% of terephthalate,  
from 0 to 25 mol% of isophthalate,  
from 11 to 88 mol% of azelate,  
from 0 to 50 mol% of sebacate,  
from 0 to 50 mol% of adipate,  
more than 30 mol% of ethylene,  
based in each case on the total amount of dicarboxylate or the total amount of alkylene.
5. The sealable and peelable polyester film as claimed in one of claims 1 to 4, wherein the heatsealable and peelable top layer (A) has a sealing commencement temperature (= minimum sealing temperature) with respect to the APET side of APET/CPET trays of not more than 165°C.
6. The sealable and peelable polyester film as claimed in one of claims 1 to 5, wherein the heatsealable and peelable top layer (A) has a seal seam strength with respect to the APET side of APET/CPET trays of at least 1.0 N.
7. The sealable and peelable polyester film as

03/036 MFE

claimed in one of claims 1 to 6, wherein the heatsealable and peelable top layer (A) with respect to the APET side of APET/CPET trays has a max. sealing temperature of 220°C.

5

8. The sealable and peelable polyester film as claimed in one of claims 1 to 7, wherein the sealing temperature (in °C) and the peeling force (in N/15 mm) are correlated via the following equation:

10

$$0.035 \cdot \vartheta/^{\circ}\text{C} - 4.1 \leq \text{peeling force } F/N \text{ per } 15 \text{ mm} \leq 0.05 \cdot \vartheta/^{\circ}\text{C} - 2.5$$

9. The sealable and peelable polyester film as claimed in one of claims 1 to 8, wherein the polyester for the top layer (A) is produced from two polyesters I and II.

15

10. The sealable and peelable polyester film as claimed in claim 9, wherein the proportion of the polyester I in the top layer (A) is from 0 to 50 % by weight.

20

11. The sealable and peelable polyester film as claimed in claim 10, wherein the polyester I consists of one or more aromatic dicarboxylates and one or more aliphatic alkylenes.

25

12. The sealable and peelable polyester film as claimed in claim 9, wherein the proportion of polyester II in the top layer (A) is from 50 to 100 % by weight.

30

03/036 MFE

13. The sealable and peelable polyester film as  
claimed in claim 12, wherein the polyester II  
consists of one or more aromatic dicarboxylates  
and also one or more aliphatic dicarboxylates and  
one or more aliphatic alkylenes.
14. The sealable and peelable polyester film as  
claimed in one of claims 9 to 13, wherein the  
glass transition temperature of polyester I is  
more than 50°C.
15. The sealable and peelable polyester film as  
claimed in one of claims 9 to 14, wherein the  
glass transition temperature of polyester II is  
less than 20°C.
16. The sealable and peelable polyester film as  
claimed in one of claims 1 to 15, wherein the  
distribution of the particle diameters of the  
particles has a degree of scatter which is  
described by a SPAN98 of  $\leq 2.0$ .
17. The sealable and peelable polyester film as  
claimed in one of claims 1 to 16, wherein the film  
has two layers and an AB structure.
18. The sealable and peelable polyester film as  
claimed in one of claims 1 to 16, wherein the film  
has three layers and an ABC structure.
19. A process for producing a sealable and peelable  
polyester film as claimed in claim 1, in which the  
polymers for the base layer (B) and the top layer

03/036 MFE

(A) which is composed of a polyester which is composed of

a) 12-89 mol% of units which derive from at least one aromatic dicarboxylic acid and

5 b) 11-88 mol% of units which derive from at least one aliphatic dicarboxylic acid,

and, where appropriate, the top layer (C) are fed to separate extruders, the melts are then shaped and layered on top of one another in a multilayer die to give flat melt films, then the multilayer film is drawn off with the aid of a chill roll and optionally further rolls, solidified and then biaxially stretch-oriented and heat-set, the biaxial stretching being carried out in succession, first longitudinally (in machine direction) and then transversely (at right angles to machine direction) that the longitudinal stretching is carried out at a temperature in the range from 60 to 130°C and the transverse stretching in the range from 90 to 140°C, and that the longitudinal stretching ratio is set within the range from 2.0:1 to 5.5:1 and the transverse stretching ratio within the range from 2.4:1 to 5.0:1.

25

20. The process as claimed in claim 19, in which the longitudinal stretching is carried out at a temperature in the range from 60 to 120°C and the transverse stretching in the range from 90 to 140°C and that the longitudinal stretching ratio is in the range from 2.0:1 to 5.0:1 and the transverse stretching ratio in the range from 2.4:1 to 5.0:1.

30

03/036 MFE

21. The process as claimed in claim 19, in which the longitudinal stretching is carried out at a temperature in the range from 60 to 110°C and the transverse stretching in the range from 90 to 140°C and that the longitudinal stretching ratio is set within the range from 2.0:1 to 4.8:1 and the transverse stretching ratio within the range from 2.4:1 to 5.0:1.
22. The use of a sealable polyester film as claimed in one of claims 1 to 18 as a lid film for covering APET/CPET trays.